

CLAIM SET AS AMENDED

1. (Currently Amended) Method for transmission of variable sized packets from an upper layer of a stack of communication protocol layers to a lower layer intended to manage fixed size packets, said method comprising the steps of:

forming a segmentation and reassembly layer intended to manage SAR packets, each SAR packet being made up of a header obtained in adding delineation information to the header of one of the variable sized packets of the upper layer of the stack, wherein the stack includes at least four layers, ~~including the segmentation and reassembly layer~~ one of which is an ARQ (Automatic Retransmission Request) layer, and of a payload which contains the payload of the upper layer packet, and

segmenting the flow of the thus obtained SAR packets into fixed sized packets for transmitting to the lower layer.

2. (Original) Method of claim 1, wherein said delineation information is made up of a flag with a specific pattern.

3. (Currently Amended) Method according to claim 1, wherein the header of each SAR packet is provided with a field which codes the length of the payload of ~~[[said]]~~ each SAR packet.

4. (Previously presented) Method according to claim 1, wherein said header is provided with a field which is a replica of the header of the upper layer packet whose payload makes up its payload.

5. (Previously Presented) Method for transmission of variable sized packets from an upper layer of a stack of communication protocol layers to a lower layer intended to manage fixed size packets, said method comprising the steps of:

forming a segmentation and reassembly layer intended to manage SAR packets, each SAR packet being made up of a header obtained in adding delineation information to the header of one of the variable sized packets of the upper layer and of a payload which contains the payload of the upper layer packet, and

segmenting the flow of the thus obtained SAR packets into fixed sized packets for transmitting to the lower layer,

wherein said header is provided with a field which is a replica of the header of the upper layer packet whose payload makes up its payload, and

wherein the headers of the upper layer packets having different lengths depending on the characteristics of their payloads, wherein the header of each SAR packet is provided with a field which codes the length of the upper layer packet header.

6. (Previously presented) Method according to claim 1, wherein the header of each SAR packet is provided with a cyclic redundancy code applied to the whole header, the delineation information excepted.

7. (Currently Amended) Method according to claim 1, wherein each SAR packet is optionally provided with a cyclic redundancy code applied to the payload of [[said]] each SAR packet.

Claim 8 (Canceled).

9. (Currently Amended) Packet according to claim [[8]] 12, wherein said delineation information is made up of a flag with a specific pattern.

10. (Currently Amended) Packet according to claim [[8]] 12, wherein its header is provided with a field which codes the length of the payload of said packet.

Claim 11 (Canceled).

12. (Previously Presented) Packet intended to be managed by a layer of a communication protocol stack between an upper layer supporting variable sized packets and a lower layer supporting fixed size packets, wherein said packet is a variable sized packet whose header is made up in adding a delineation information to the header of the upper layer packet and whose payload contains the payload of said upper layer packet, and

wherein said packet header is provided with a field which is a replica of the header of the upper layer packet whose payload makes up its payload, and

wherein the headers of the upper layer packets having different lengths depending on the corresponding payload, wherein its header is provided with a length code field which codes the length of the upper layer packet header.

13. (Currently Amended) Packet according to claim [[8]] 12, wherein its header is provided with a cyclic redundancy code applied to the whole header, the delineation information excepted.

14. (Currently Amended) Packet according to claim [[8]] 12, wherein it is provided with a cyclic redundancy code applied to its whole payload.

15. (Currently Amended) Method for recovering a variable sized packet of an upper layer of a stack of communication protocol layers from a flow of packets according to claim [[8]] 12, said method comprising the steps of:

searching in the flow of packets an delineation information and, when found, decoding a header of a found packet, then extracting the upper layer packet header, and,

pointing out a payload of the found packet, then extracting the upper layer packet payload.

16. (Previously Presented) Method for recovering a variable sized packet of an upper layer of a stack of communication protocol layers from a flow of packets, said method comprising the steps of:

searching in the flow of packets for delineation information and, when found, decoding a header of a found packet, then extracting the upper layer packet header, and

pointing out a payload of the found packet, then extracting the upper layer packet payload,

reading the length field out of the found packet header in order to point out the payload of the found packet, and

wherein said flow of packets is generated from a packet intended to be managed by a layer of the communication protocol stack between the upper layer supporting variable sized packets and a lower layer supporting fixed size packets, wherein said packet is a variable sized packet whose header is made up by adding delineation information to the header of the upper layer packet and whose payload contains the payload of said upper layer packet.

17. (Previously presented) Method according to claim 15, wherein it includes a step of checking that no error has occurred in the header during transmission of the found packet and, if it has, restarting the step of searching an information delineation.

18. (Previously presented) Method according to claim 15, wherein it includes a step of checking that no error has occurred in the payload during transmission and, if it has, restarting the step of searching an information delineation.

19. (Previously presented) Method according to claim 15, wherein it includes a step of reading the length code field out of the found packet header in order to read the header of the upper layer packet.

20. (Currently Amended) A method for transmitting packets, comprising:

~~selecting~~ transmitting variable sized packets from an upper layer to a lower layer of a stack of communication protocol layers including at least four layers, one of which is an ARQ (Automatic Retransmission Request) layer,

~~converting~~ processing said variable sized packets into an alternative set of variable sized packets, each packet of the alternative set including header and payload of an upper layer packet and additional identification information added to said header,

segmenting said alternative set into a set of fixed size packets for a lower layer of the stack to be transmitted to a receiver, wherein said set of fixed packets being ~~misaligned~~ made with said alternative set of variable size packets.

21. (Currently Amended) The method of claim 20, wherein said ~~converting~~ processing includes adding a flag as said additional identification information.

22. (Currently Amended) The method of claim 20, wherein said ~~converting~~ processing includes adding a field which indicates length of the payload as part of the header.

23. (Currently Amended) A method for receiving packets, comprising:

~~selecting~~ transmitting fixed size packets ~~[[being]]~~ which are received by a lower layer of a stack of communication protocol layers including at least four layers, one of which is an ARQ (Automatic Retransmission Request) layer,

recovering variable size packets of an upper layer of the stack, wherein said variable size packets being ~~misaligned~~ made with said fixed size packets, by performing the steps of:

decoding header of each packet of the ~~selected~~ processed packets using identification information located in the header to determine and extract header of each packet of the upper layer of the stack,

locating payload of each ~~selected~~ processed packet to determine and extract payload of each upper layer packet.